Amendments to the Claims

Please amend the claims as indicated below. All claims are listed below, with amended claims so marked. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method for determining part replacement related information by an end user, comprising:

obtaining an associated identifier of a first part;

automatically coupling by a scanner interface the identifier of the first part to a network enabled browser;

automatically retrieving by the browser from a remote database replacement related information for the first part;

determining a replacement dependency between the first part and a second part which should be replaced along with the first part;

automatically retrieving by the browser from the remote database, based at least in part on the determined replacement dependency, replacement related information for the second part; and

automatically displaying by the browser for the end user the retrieved replacement related information for the first part.

2. (Previously Presented) A method according to claim 1, wherein the identifier of the first part is a selected one of a UPC identifier, product-identifier mark, and textual product identifier.

3. (Original) A method according to claim 1, further comprising:

obtaining at least one user preference; and

arranging the retrieved replacement related information according to the at least one user preference.

4. (Original) A method according to claim 3, wherein the user preference is a selected one of limiting price, limiting distance to travel to obtain a replacement part, limiting shipping time for the replacement part, limiting time to effect part replacement, and only displaying a vendor having the replacement part in stock.

5. (Original) A method according to claim 4, further comprising:

categorizing the retrieved replacement related information into plural categories;

wherein such categories are sorted according to the at least one user preference.

6. (Original) A method according to claim 3, further comprising:

identifying at least one provider within the retrieved replacement related information having a replacement part in stock; and

prominently displaying the at least one provider;

wherein prominently displaying includes sorting the retrieved replacement related information so that the at least one provider is at the top of such retrieved information.

7. A method according to claim 1, in which the network connection is a link with the Internet, the method further comprising:

providing the associated identifier in a predetermined format, such format being a selected one of a bar-code format, a product-identifier mark, and a verbal identifier;

wherein a portable bar-code scanner is utilized to obtain the associated identifier.

8. (Previously Presented) A method according to claim 1, the method further comprising:

contacting a cross-reference hub;

searching the cross-reference hub with the associated identifier to obtain at least one additional product identifier; and

automatically searching the remote database with the at least one additional product identifier to retrieve replacement related information for the first part.

9. (Original) A method according to claim 8, wherein the associated identifier is a non-unique product category reference, and the at least one additional product identifier is partially unique.

10. (Original) A method according to claim 8, further comprising:

semantically analyzing the retrieved replacement related information; and

reorganizing the retrieved replacement related information according such analysis.

11. (Original) An article of manufacture, comprising:

a computer readable medium;

wherein encoded on the computer readable medium are instructions capable of causing a processor to perform the steps of claim 1.

12. (Previously Presented) A method according to claim 1, in which the replacement related information includes related part data identifying the second part.

13. (Previously Presented) A method according to claim 1, further comprising:

determining a geographic location for the first part;

identifying vendors of a replacement part for the first part, each vendor having a geographic location; and

sorting the vendors according to their geographic proximity to the first part.

14. (Original) A method according to claim 13, further comprising:

providing a proximity preference, such preference set to user election if such election has been made, otherwise to a predetermined value; and

culling the retrieved replacement information according to the proximity preference.

15. (Previously Presented) A method according to claim 13, further comprising:

receiving user-specified price terms for a replacement part for the first part;

identifying, from the retrieved replacement information, a sales price offered by vendors for the replacement part; and

culling the retrieved replacement information according to the user-specified price terms.

16. (Original) An article of manufacture, comprising:

a computer readable medium;

wherein encoded on the computer readable medium are instructions capable of causing a processor to perform the steps of claim 15.

17. (Previously Presented) A method according to claim 1, further comprising:

receiving user-specified price terms for a replacement part for the first part;

identifying, from the retrieved replacement information, a sales price offered by vendors for the replacement part; and

culling the retrieved replacement information according to the user-specified price terms.

18. (Previously Presented) A method according to claim 1, the method further comprising:

retrieving from the remote database replacement related concerns, such concerns including warning and suggestions for a user seeking to replace the first part;

retrieving from the remote database identification of related parts requiring replacement along with the first part;

displaying the replacement related concerns to the user; and

notifying the user of the related parts requiring replacement.

19. (Original) A method according to claim 18, wherein an expert system interactively displays the replacement related concerns and notification of related parts requiring replacement.

20. (Previously Presented) A system for determining part replacement related information by an end user, comprising:

a scanner for scanning an associated identifier of a part;

a network-enabled browsing arrangement; and

a scanner interface facilitating communication between the scanner interface and the network-enabled browsing arrangement, such communication including transferring the associated identifier to the browsing arrangement;

wherein the browser automatically connects to a remote database over a network to retrieve replacement related information for the first part, determines a replacement dependency between the first part and a second part which should be replaced along with the first part, and automatically retrieves, based at least in part on the determined replacement dependency, replacement related information for the second part.

21. (Original) A system according to claim 20, further comprising:

a computing device comprising a processor capable of being directed to process commands stored in a program memory, and an input/output port;

wherein

the scanner is in communication with the input/output port,

the browsing arrangement is provided as a first sequence of program commands stored in the program memory for execution by the processor, and

the scanner interface is provided as a second sequence of program commands stored in the program memory for execution by the processor, where the scanner interface receives the scanned associated identifier through the input/output port and provides such identifier to the browsing arrangement.

22. (Original) A system according to claim 20, wherein the scanner is incorporated into the computing device.

23. (Previously Presented) A system, comprising:

means for scanning an associated identifier of a first part by the end user;

means for automatically coupling by a scanner interface the scanned identifier of the first part to a network enabled browser;

means for automatically connecting by the browser over a network connection to a remote database to retrieve replacement related information for the first part, determining a replacement dependency between the first part and a second part which should be replaced along with the first part, and automatically retrieving, based at least in part on the determined replacement dependency, replacement related information for a second part, such database searchable by the associated identifier; and

means for automatically displaying by the browser for the end user the retrieved replacement related information for the first part.

24. (Original) A system according to claim 23, further comprising:

means for obtaining at least one user preference; and

means for arranging the retrieved replacement related information according to the at least one user preference.

D1

25. (Previously Presented) A method for determining part replacement related, comprising:

obtaining an identifier of a first part with a scanner communicatively coupled to an expert system;

automatically connecting by the expert system over a network connection to at least one remote database to retrieve, based at least on the identifier, replacement related information for the first part;

determining a replacement dependency between the first part and a second part which should be replaced along with the first part;

automatically connecting by the expert system over the network connection to the remote database to retrieve, based at least in part on the determined replacement dependency, replacement related information for the second part;

receiving candidate results from the at least one remote database; and

processing by the expert system of the candidate results to identify one or more replacements for the first part.

26. (Original) The method of claim 25, wherein the replacement related information for the first part includes replacement related information for a second part suggested to be replaced along with the first part.

27. (Original) The method of claim 25, further comprising:

displaying in a web browser a web page identifying the one or more replacements for the first part.

28. (Original) The method of claim 25, further comprising:

obtaining at least one user preference; and

culling by the expert system of retrieved replacement related information according to the at least one user preference.

29. (Original) The method of claim 28, wherein the user preference is a selected one of limiting price, limiting distance to travel to obtain a replacement part, limiting shipping time for the replacement part, limiting time to effect part replacement, and only displaying a vendor having the replacement part in stock.

30. (Original) The method of claim 29, further comprising:

displaying in a web browser a web page identifying the one or more replacements for the first part satisfying the at least one user preference.

31. (Previously Presented) A method for locating a replacement part for an item having one or more replaceable parts, comprising:

determining an identifier for a part requiring replacement;

providing the identifier to a network application program communicatively coupled with a database searchable by at least the identifier, the database associating the part with related parts of the item, if any, that have a replacement dependency with the part and therefore should be replaced along with the part; and

retrieving replacement information from the database for the part and related parts of the item, if any, that should be replaced along with the first part.

32. (Original) The method of claim 31, wherein related parts associated with the part, if any, are recommended by a manufacturer to be replaced along with the part.

33. (Original) The method of claim 31, further comprising:

scanning the identifier with a scanner; and

automatically coupling the scanner to the network application program to provide the identifier thereto.

34. (Original) The method of claim 31, further comprising:

displaying the replacement information to an end-user.

35. (Original) The method of claim 31, wherein the identifier of the part is a selected one of a UPC identifier, product-identifier mark, and textual product identifier.

36. (Original) The method of claim 31, further comprising:

receiving a restriction; and

identifying at least one portion of the retrieved replacement information satisfying the user restriction.

37. (Original) The method of claim 31, further comprising:

obtaining a preference; and

arranging the retrieved replacement information according to the preference.

38. (Original) The method of claim 37, wherein the preference is a selected one of: limiting price, limiting distance to travel to obtain the replacement part, limiting shipping time for the replacement part, limiting time required to install the replacement part, only displaying vendors having the replacement part in stock, and only displaying vendors stocking the replacement part and related parts, if any, that should be replaced along with the first part.

39. (Original) The method of claim 38, further comprising:

categorizing the retrieved replacement related information into plural categories; and

sorting the categories according to the preference.

40. (Original) A method according to claim 37, further comprising:

categorizing the retrieved replacement related information into plural categories.

41. (Original) The method of claim 31, further comprising:

determining sources from which the replacement part may be obtained;

identifying, based at least in part on the replacement information, at least one source having the replacement part in stock; and

presenting the sources from which the replacement part may be obtained, said presenting including prominently displaying the at least one source having the replacement part in stock.

42. (Original) The method of claim 31, wherein prominently displaying includes sorting the sources from which the replacement part may be obtained so that the at least one source having the replacement part in stock is provided before sources not having the replacement part in stock.

43. (Original) The method of claim 31, further comprising:

receiving an oral utterance; and

converting the oral utterance into the identifier.

44. (Original) The method of claim 31, further comprising:

providing the identifier to the network application program in a selected one of the following formats: a bar-code format, a product-identifier mark, and a verbal identifier.

45. (Original) The method of claim 31, further comprising:

determining an equivalence identifier for a substitution part which may be used to replace the part;

providing the equivalence identifier to the network application program communicatively coupled with the database, the database also searchable by the equivalence identifier;

46. (Original) The method of claim 31, further comprising:

determining an equivalence identifier for a substitution part which may be used to replace the part;

providing the identifier to the network application program communicatively coupled with a equivalence database searchable by at least the equivalence identifier, the equivalence database associating the substitution part with related substitute parts of the item, if any, that should be replaced along with the first part.

47. (Original) The method of claim 46, wherein the database and the equivalence database are separate databases.

48. (Original) The method of claim 38, further comprising:

semantically analyzing the retrieved replacement information; and

reorganizing the retrieved replacement information according to the analyzing.

49. (Original) The method of claim 31, further comprising:

determining a geographic location for the part;

identifying vendors of the replacement part, each vendor having a geographic location; and

sorting the vendors according to their geographic proximity to the part.

50. (Original) A method according to claim 31, further comprising:

providing a proximity preference, such preference set to a user election if such election has been made, otherwise to a default value; and

culling the retrieved replacement information according to the proximity preference.

51. (Original) The method of claim 31, further comprising:

receiving user-specified price terms for a replacement part for the part;

identifying vendors of the replacement part based at least in part on the retrieved replacement information;

identifying a sales price offered by said vendors for the replacement part; and

culling the retrieved replacement information according to the user-specified price terms.

52. (Original) The method of claim 31, further comprising:

retrieving from the database replacement related concerns, such concerns including warnings and suggestions for a user seeking to replace the part; and

displaying the replacement related concerns.

53. (Original) The method of claim 52, wherein an expert system interactively displays the replacement related concerns.

54. (Previously Presented) An article comprising a machine-accessible media having associated data, wherein the data, when accessed, results in a machine performing:

determining an identifier for a part requiring replacement;

providing the identifier to a network application program communicatively coupled with a database searchable by at least the identifier, the database associating the part with related parts of the item, if any, that have a replacement dependency with the part and therefore should be replaced along with the part; and

retrieving replacement information from the database for the part and related parts of the item, if any, that should be replaced along with the first part.

55. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

scanning the identifier with a scanner; and

automatically coupling the scanner to the network application program to provide the identifier thereto.

56. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

determining sources from which the replacement part may be obtained;

identifying, based at least in part on the replacement information, at least one source having the replacement part in stock; and

presenting the sources from which the replacement part may be obtained, said presenting including prominently displaying the at least one source having the replacement part in stock.

57. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

receiving an oral utterance; and

converting the oral utterance into the identifier.

58. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

determining an equivalence identifier for a substitution part which may be used to replace the part;

providing the equivalence identifier to the network application program communicatively coupled with the database, the database also searchable by the equivalence identifier;

59. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

determining a geographic location for the part;

identifying vendors of the replacement part, each vendor having a geographic location; and

sorting the vendors according to their geographic proximity to the part.

60. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

providing a proximity preference, such preference set to a user election if such election has been made, otherwise to a default value; and

culling the retrieved replacement information according to the proximity preference.

61. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

receiving user-specified price terms for a replacement part for the part;

identifying vendors of the replacement part based at least in part on the retrieved replacement information;

identifying a sales price offered by said vendors for the replacement part; and

culling the retrieved replacement information according to the user-specified price terms.

62. (Original) The article of claim 54 wherein the machine-accessible media further includes data, when accessed, results in the machine performing:

retrieving from the database replacement related concerns, such concerns including warnings and suggestions for a user seeking to replace the part; and

displaying the replacement related concerns.

63. (Previously Presented) A system for locating a replacement part for an item having one or more replaceable parts, comprising:

a scanner for scanning an identifier for a part requiring replacement; and

a device operating a network application program communicatively coupled with a database searchable by at least the identifier, the database associating the part with related parts of the item, if any, that have a replacement dependency with the part and therefore should be replaced along with the part; the network application program configured to retrieve replacement information from the database for the part and related parts of the item, if any, that should be replaced along with the first part.

64. (Original) The system of claim 63, wherein the scanner is incorporated into the device.

65. (Original) The system of claim 63, wherein the scanner is wirelessly communicatively coupled with the device.

D1

66. (Original) The system of claim 63, further comprising:

an input for the device from which may be received a restriction; and

wherein the network application program operates to identify at least one portion of the retrieved replacement information satisfying the user restriction.

67. (Original) The system of claim 63, further comprising:

an input for the device from which may be received a preference; and

wherein the network application program operates to arrange the retrieved replacement information according to the preference.

68. (Original) The system of claim 63, further comprising:

an input for the device from which may be received an oral utterance; and

conversion logic communicatively coupled to the input and the device for converting the oral utterance into the identifier.

D2

69. (New) The method of claim 31, the method further comprising:

providing questions to the network application program regarding circumstances surrounding a failure, and receiving a response thereto;

determining based on the response that the part requiring replacement is not broken but that an other part is instead broken; and

retrieving replacement information for the other part.